

Developing a Collaborative Spectrum Sharing and Impact Analysis Process

Background

- The National Broadband Plan recommended in 2010 that the FCC make 500 MHz of spectrum available for broadband use within ten years, including 300 MHz between 225 MHz and 3.7 GHz for mobile use within the next five years.
- In June 2010, President Obama directed the Secretary of Commerce, through the National Telecommunications and Information Administration (“NTIA”), to collaborate with the FCC to make 500 MHz of Federal and non-Federal spectrum available that is suitable for mobile and fixed broadband use over the following ten years.
- NTIA has identified several spectrum bands that may accommodate commercial wireless broadband services, including the 1695-1710 MHz, 1755-1780 MHz, 3550-3650 MHz, 4200-4220 MHz and 4380-4400 MHz bands.
- In April 2011, the FCC’s Spectrum Task Force sought comment on the steps the FCC can take to assess the feasibility of, and promote, wireless broadband deployment on the bands identified by NTIA.

Need for Collaboration Between Affected Users and Interested Parties

- Commercial use of the spectrum bands identified by NTIA presents various challenges in light of existing operations in the bands.
- The opportunities presented by these spectrum bands will be realized only if affected users and interested parties work together to discuss, develop and analyze potential short-term and long-term mechanisms to share the spectrum among Federal and non-Federal users.
- These sharing opportunities likely will involve systems with different technical and operational characteristics (*e.g.*, cellular systems operating on spectrum with federal satellite, aeronautical, fixed or radar operations), and users with different objectives.
- Given the technical complexity of these systems and the wide range of uses for which they are or will be deployed, it is unlikely that individual users or representatives from one sector of the industry will have expertise that covers all systems and technology advances.
- Close collaboration between parties may provide ways in which users can take advantage of operational differences to facilitate sharing (*e.g.*, the geographic location of systems), provide alternatives to solve potential interference issues, and otherwise permit both Federal and non-Federal use of the spectrum.
- The most efficient and effective means to determine and implement potential sharing opportunities is through a direct dialogue between experts familiar with the systems under consideration.
- Close collaboration also will help parties define the appropriate rights and responsibilities of the affected parties.

Discussion Between Government and Non-Government Entities is Permissible

- Strong precedent exists for collaborative discussions regarding this spectrum – whose identification was mandated by Presidential directive.
- Discussions between government and non-government entities could be facilitated in numerous ways. Examples include:
 - Meetings called by NTIA that involve interested parties.
 - Industry-initiated discussions and meetings.
 - FCC workshops.
- These discussions have been successful in the past to facilitate the availability of government-allocated spectrum for commercial use:
 - *Developing sharing parameters between unlicensed devices and radars in the 5 GHz band.* Following WRC-2000, which led to the addition of a mobile allocation to the 5 GHz band and proposals for spectrum sharing, NTIA led discussions between the Department of Defense (“DoD”) and Federal Aviation Administration (“FAA”) radar experts and private sector manufacturers to develop a method for sharing spectrum in the 5 GHz band. These discussions resulted in agreement on a sensing method that allows unlicensed devices to operate in frequency bands used by DoD and FAA radars at times and locations when the radars are not operating, while ensuring that the unlicensed devices vacate the spectrum when used by the radars.
 - *Availability of the 1710-1755 MHz band for AWS.* The President issued a memorandum following WRC-2000 to study certain IMT-2000 bands, particularly the 1710-1850 MHz and 2.5 GHz bands, to determine the feasibility of making those bands commercially available in the U.S. As part of this effort, NTIA and DoD produced reports in March 2001 describing the systems operating in the federal band. Following the release of the reports, a series of meetings were conducted among industry, NTIA and Federal agencies to discuss and evaluate use of the band. These discussions – initiated by industry but supported by NTIA and with full participation by Federal agencies – helped advance mutual understanding about the use of the band.
- Based upon non-binding interpretations by the General Services Administration, the Federal Advisory Committee Act (“FACA”) arguably does not apply to meetings and discussions such as those proposed above so long as they are used exclusively for gathering and providing facts and information.

Scope of Review should be Well Defined But Flexible

- The scope of review of identified spectrum should be well defined to maximize the effectiveness and efficiency of the collaborative process.
 - For example, analysis of individual spectrum bands could be limited to the minimum number of incumbent government systems that would be affected by spectrum sharing (i.e., those systems without relocation options or with a long relocation timeline).

- There also may be certain fundamental technological or operational limitations that are critical for successful sharing of spectrum and that should be identified at the outset.
- Any processes relating to the review and analysis of spectrum sharing and other alternatives must be sufficiently flexible to promote an interactive dialogue among interested parties and to produce timely results.
- The discussions should be held as early in the process as possible to provide sufficient time and to allow open and direct discussion between the parties, including federal agencies.
- Discussions must have senior level oversight to ensure an appropriate level of participation, that the discussions are based on official recommendations and with an expectation that proposals will be implemented.
- Discussions should be open to participation by interested parties and affected users. Protections should be adopted to protect sensitive or confidential information (*e.g.*, non-disclosure agreements and closed meetings).
- Ultimately, any sharing proposals will be subject to notice and comment before being codified.

Summary:

The CSMAC recommend that the NTIA:

Facilitate a dialogue between incumbents and potential new entrants to develop specific sharing recommendations. In instances where sharing is necessary, NTIA should work with the FCC, federal agencies and potential new entrants to develop specific recommendations on the extent, impact and method of sharing spectrum. Direct discussions between experts will result in the most efficient and dynamic sharing method based on a detailed understanding of how systems and technology operate and are used. The discussions should be open to any interested parties, but must be focused on a limited number of issues or scenarios to develop actionable recommendations that would be codified as appropriate through a rule making proceeding. The discussions should be held as early in the process as possible to provide sufficient time and to allow open and direct discussion between the parties, including federal agencies. They must have senior level oversight to ensure that the discussions are based on official recommendations and with an expectation that proposals will be implemented.